

The Evolutionary Function of Prejudice

By ALAN McGREGOR

Institute for the Study of Man

The author examines the phenomenon of 'prejudice' and explains the possibility that its roots are not purely cultural. The proclivity for prejudice appears to be deeply rooted in the human psyche, and has been shown to be of distinct utility in furthering the process of speciation.

The sociobiological nature of 'prejudice' can only be clearly understood if we realize that the emotional tensions generated when diverse ethnic groups are forced into close geographical contact do not derive solely from contrasting cultural systems: they reflect deeply ingrained sociobiological mechanisms which serve an essential evolutionary function. Indeed, they are by no means of modern or even recent origin in the history of our species.

Like other animals, man is little more than a pawn on the chessboard of evolution. The basic patterns of human behavior and of human emotions had already been determined by evolutionary forces long before persons of diverse biological and cultural background were thrown together within the confines of densely populated modern societies. To properly understand the origin, nature and function of prejudice it is necessary for us to examine the biological role of the emotional tensions associated with "in-group" and "out-group" relationships - including racial relationships - in the evolutionary history of man. We must identify the evolutionary purpose of ethnic consciousness and of the sense of 'racial distance' that has tended to keep populations of diverse racial background genetically distinct from each other through hundreds of thousands of years of evolutionary development.

The Evolutionary Process

What do we mean by "evolutionary development"? Evolution is a process of organic change by which new forms of life are constantly arising and replacing others less suited to survive in a state of competition. The new concept of bio-social studies properly emphasizes the close relationship between the biological and social sciences, showing how even social behavior evolves under the selective guidance of a single arbitrating principle: the survival of the species.

Evolution reveals two major trends, the first of which is a trend from the simplicity of unicellular life forms to the complexity of advanced organisms such as are represented by mammals, primates and men. The second is the trend from the primitive uniformity of early life forms to the rich variety of diverse species, sub-species, or, in the case of man,

the diverse races which today inhabit the earth. Both trends - the trend towards increasing complexity and the trend towards increasing diversity of life forms - depend on the genetic isolation of discrete populations. In the case of simpler life forms, geographical distance by itself may be sufficient to ensure genetic isolation, but the higher more mobile forms of life require other defenses to prevent the accidental hybridization of evolving sub-species. Clearly, the evolutionary process would be frustrated if every new biological or evolutionary experiment, each new phylogenetic continuum, sub-species or race, were to lose its novel and distinctive combination of genes by admixture with sibling populations, or by the reabsorption of divergent sibling populations into the parental stock. In short, during the period in which emerging sub-species are evolving into separate species - so different from each other that they no longer have the biological ability to crossbreed their genetic identity must be protected from crossbreeding by some form of barrier, either geographical or psychological, which will effectively prevent the negation of nature's experiments before they can even emerge as separate species and subspecies.

The important role of racial differentiation in the evolutionary process was clearly perceived by Dobzhansky as early as 1937, when he observed that:

If (the) differentiation is allowed to proceed unimpeded, most or all of the individuals of one race may come to possess certain genes which those of the other race do not. Finally, mechanisms preventing interbreeding of races may develop, splitting what used to be a single collective genotype into two or more separate ones. When such mechanisms have developed and the prevention of interbreeding is more or less complete, we are dealing with separate species. A race becomes more and more of a "concrete entity" as this process goes on; what is essential about races is not their state of being but that of becoming. But when the separation of races is complete, we are dealing with races no longer, for what have emerged are separate species.

However, Dobzhansky continued: Races and species as discrete arrays of individuals may exist only so long as the genetic structures of their populations are preserved distinct by some mechanisms which prevent their interbreeding. Unlimited interbreeding of two or more initially different populations unavoidably results in an exchange of genes between them and a consequent fusion of the once distinct groups into a single greatly variable array. A number of mechanisms encountered in nature (ecological isolation, sexual isolation, hybrid sterility, and others) guard against such a fusion of the discrete arrays and the consequent decay of discontinuous variability. The origin and functioning of the isolating mechanisms constitute one of the most important problems of the genetics of populations.

As Dobzhansky added, genetic isolation becomes "advantageous for species whose distributions overlap, provided that each species represents a more harmonious genetic system than the hybrids between them."

Essential Feral Restraints

To prevent the negation of Nature's work of species-creation, we find that all higher more mobile animals living under feral (natural) conditions not only evolve a sense of territoriality, whereby they become isolated or at least semi-isolated genetically on a geographical basis in what are known as demes, but that they also develop what zoologists call "feral restraints," that is a marked unwillingness - amounting often to a positive refusal - to interbreed with members of other sub-species. These "isolating mechanisms" may be seen as "agents to ensure the mechanism that keeps them (the separate sub-species or races) on their peaks by preventing ... hybridizing" (Paterson, 1978). To the extent that emerging species involve the selective development of new patterns of harmoniously interrelated genetic qualities, hybridization can be devolutionary in its impact, creating what S. Wright (1956) has referred to as "the formation of unharmonious constellations of genes."

The geographical isolation of separate sub-species or races, each in the process of evolving into disparate species, will often be sufficient to protect the evolutionary process from any genetic intermingling of the new "experimental" varieties before they have become sufficiently differentiated to be biologically incapable of miscegenation. But geographical separation is not always effective in the case of the more advanced mobile forms of animal life, and various "feral restraints" also customarily evolve to discourage cross-breeding on those occasions that individuals from divergent populations do chance to meet.

These feral restraints serve a vital evolutionary process. Zoologists have identified two types of such constraints, the first of which are called - "built-in" constraints, based upon physical sign stimuli. "Built-in" physical constraints may take the form of distinctive shape, color, smell, or even patterns of movement, common to animals of the same subspecies, but absent from other populations. Such distinctive characteristics serve as a warning to members of related but disparate subspecies not to attempt sexual relationships. They are like a sign that reads "Danger! a new biological experiment is in progress. Do not approach!" (Simpson, 1964). But in addition to these built-in constraints, the distinguished zoologist, Peter Klopfer, (1970) has shown that acquired constraints exist among feral animals due to behavioral imprinting. These may be equated with the culturally-reinforced prejudices associated with "in-group" and "out-group" behavior among human beings.

Domestication Distorts Innate Behavior Patterns

Domestication, by breaking down territorial restrictions and destroying patterns of feral or natural activity, often results in perverted, misdirected, unnatural and anti-evolutionary behavior. The innate drives of domesticated animals generally express themselves in a confused and evolutionarily useless variety of patterns, while the behavior patterns of caged animals may become more extensively deranged. Not only do they often refuse to eat, but those that do eat may experiment with masturbation and homosexuality, or even seek to mate with animals of other breeds (Calhoun, 1962) - an activity which, regularly

and consistently repeated, would necessarily negate any further speciation or racial diversification. Culture, particularly in urbanized societies, may likewise pervert human instincts by suppressing natural feral constraints and encouraging abnormal patterns of behavior, leading to similar distortions of normal biological behavior, such as homosexuality and the quest for abnormal erotic experiences, including those associated with inter-subspecific sexual experimentation. No human civilization has to date avoided collapse, and it is tempting to enquire whether social conditions which diverge too widely from the natural or feral conditions under which mankind evolved - and to which humankind is biologically adapted - may weaken the survival potential of over-domesticated populations by promoting anti-evolutionary life-styles, together with their concomitant reproductive abnormalities.

The Sociobiological Role of Prejudice

The sociobiological significance of prejudice becomes even more apparent when we realize that evolution arises not solely from individual competition. Team spirit and group cohesiveness have a high survival value for those mammals and primates which have adopted a pattern of group life. Furthermore, the concept of the survival of the fittest among social animals such as man refers less to individuals than it does to breeding populations and entire sub-species. Indeed evolution is concerned not with the individual organism but only with breeding populations, with phylogenetic continua. Evolution involves populations, sub-species and species. Evolution is in no way concerned with the welfare or well-being of any one individual organism except to the extent that the death or survival of that organism may affect the gene pool of the breeding population.

Fitness also must not be misunderstood. In the evolutionary context - by which we mean the living reality - fitness means only the ability of any breeding population, sub-species or race to reproduce itself, and, at the more complex mammalian, primate and human levels, the ability of adults to protect their offspring until the offspring can in turn successfully reproduce themselves. Biologically, an individual is little more than a link in the chain of generations. The genetic integrity of the gene pool is therefore of paramount evolutionary importance. Evolution could not continue its work amongst the higher animals if each new experimental sub-species were to lose its identity before it had time to evolve into a new species.

The Importance of the Genetic Isolation of Races

Evolutionary competition is between rival sub-species. It is concerned with breeding populations, not with individuals as the Social Darwinists have too often erroneously assumed, overlooking the fact that Darwin specifically emphasized this when he chose to name his epic work *The Origin of Species by Means of Natural Selection or the Preservation of Favored Races in the Struggle for Life*. Indeed, cooperation at the primate and human level is aimed more at group survival than individual survival. Social cooperation in the primate troop and in the primitive human band arose as an evolutionary necessity to ensure the survival of the group as a distinctive phylogenetic

breeding population. As G.G. Simpson (1964) has explained, the genetic isolation of races as emergent species is a matter of "great evolutionary significance." The genetic advancement of man arose as a result of ongoing competition for survival between genetically different, non-interbreeding hominid populations, and was sustained not merely by geographical isolation but also by developing bonds of cooperation and love within the kindred, and of suspicion, fear, antagonism, and even warfare against such alien groups as might become competitors for the territorial and material resources necessary to sustain life.

That the evolutionary struggle is commonly fiercest between closely related species, and particularly between sub-species who are dependent on and consequently competing for similar resources, was recognized by Dobzhansky, Ayala, Stebbins and Valentine (1977), who wrote:

Related species compete for resources that both are in need of, and one species may outbreed and crowd out another ...

In their earlier more feral existence at the level of the primate troop, the human band, and the human tribe, man's forebears consequently developed a capacity to distrust and repel those they perceived of as alien, as well as to love and to assist those whom they identified as allies. Every member of every human group has ever since experienced two different sets of reactions when dealing with others: one of loyalty towards members of the in-group, the other of caution and competitiveness towards members of the out-group. Ludwig Gumplowitz referred to these two separate sets of behavior as syngenisism (attachment and loyalty) and ethnocentrism (suspicion of aliens). He further suggested that the pressure of competition from other groups tended to reinforce the feelings of loyalty and cooperation, heightening the consciousness of ethnocentrism and prejudice against "outsiders." These forces enhance the competitive viability of the group in its struggle to survive and to outbreed rival groups, and also serve to protect the ongoing process of homogenization within the group's own gene pool - a process which is itself dependent upon a high degree of genetic isolation.

Conclusion

These attitudes of in-group loyalty and out-group suspicion, which appear to have evolved long before the evolution of primitive human bands and to have developed more consciously identifiable forms at the level of tribal and national societies, reflect a clear-cut evolutionary purpose. Patterns of racial and ethnic prejudice, of in-group loyalty and out-group suspicion, have served an effective evolutionary purpose over the long history of primate and human biological evolution, both in enhancing the competitiveness of the individual breeding population and also in preserving the uniqueness of its distinctive genetic heritage by discouraging interbreeding with the members of disparate sub-species. The evolutionary message is clear. Human groups which lose their internal sense of identity and cohesion in respect of other groups eventually cease to exist as discrete realities. Amongst the higher more mobile forms of animal life, isolating mechanisms

such as prejudice are necessary to preserve the genetic identity of races and sub-species (as emergent species) by inhibiting miscegenation. A human population which practices endogamous marriage and strives to preserve the integrity of its gene pool should not be criticized as immoral. Such behavior implies that it is adhering to deeply rooted instincts essential to the evolutionary process, which process - from the point of view of purely logical, naturalistic thought - provides the only basis for any scientifically sound system of ethical philosophy.

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